malvoides could be surrounded by a ring fence excluding malvae, and even in these alpine habitats the line would not have many salients.

It is perhaps curious to observe that the appendages of *malvoides* are very distinct from those of the other three species, which are not very dissimilar, especially in the apophyses, which are something of the form in onopordi. Yet the wing patterns are very distinct in the case of melotis, one of the three, and its place is taken by malvoides, giving three species hardly distinguishable not only in general facies but in much detail.

#### EXPLANATION OF PLATES.

Plate I. Undersides of Hesperia × 2. Photo A. E. Tonge.

- Fig. 1. H. malvae. Fig. 2. H. malvoides. Fig. 3. H. melotis.
- Fig. 4. H. cynarae.

Male Appendages of Hesperia. Plate II.

- Fig. 1. H. melotis  $\times 20$ .
- Fig. 2. H. malvoides  $\times 15$ . Fig. 3. H. malvoides  $\times 15$ .

Fig. 4. H. malvoides  $\times 20$ .

Plate III. Male Appendages of Hesperia × 15.

- Fig. 1. H. cynarac.
- Fig. 2. H. malvae.

Fig. 3. H. malvae.

# New Species of Staphylinidæ from Rhodesia.

By MALCOLM CAMERON, M.B., R.N., F.E.S.

The species here described were collected by the late Mr. H. C. Dollman. I am indebted to Mr. H. St. John Donisthorpe for the privilege of examining these insects and for co-types, the types are in the British Museum (Natural History), South Kensington.

#### 1. Schistogenia dollmani n.sp.

Ferruginous red, dull, somewhat depressed, abdomen pointed; fore parts coarsely and rugosely punctured ; first three or four joints of the antennæ, mouth parts and legs, reddish-testaceous. Length 3.2mm.-5mm.

More brightly coloured than S. crenicollis Kr., with more pointed abdomen and average size larger, thorax broader, more strongly impressed on the disc, the antennæ thicker and the elytral sculpture less coarse.

Head transverse; eyes large, moderately prominent, temples parallel, puncturation coarse, close and rugose; antennæ stout with the first three joints of about equal length, the 4th joint a little longer than broad, the 5th to the 10th transverse gradually increasing in breadth, the 11th conical, about as long as the two preceding together.

Thorax twice as broad as long, the anterior border broadly emarginate, the anterior angles acute, the base deeply bisinuate, the sides moderately rounded and crenulate, slightly sinuate before the posterior angles which are acute, the disc broadly and deeply impressed for nearly the whole extent in the middle, with a less distinct rounded impression between this and the posterior angles, and an oblique impression at the anterior border on either side; sculpture similar to that of the head.

Elytra as long as, but narrower than, the thorax, transverse, strongly emarginate internal to the postero-external angles, the sculpture consisting of moderately coarse and close granules.

Abdomen pointed, the bases of the first four visible segments crenulate, for the rest very finely and closely punctured and pubescent throughout.

Hab., Namwala, June 19th, 1914.

# Myrmedonia robusta n.sp.

Robust, convex, navicular, shining, pale reddish-ochraceous, the head pitchy brown behind the level of the antennal tubercles. Antennæ compressed, ferruginous, mouth parts and legs reddish-testaceous. Length 10mm. Breadth 4mm.

Head transverse, constricted behind, the neck broad, the eyes large and prominent, the mandibles produced and falciform, the right one with a small tooth at the middle of the inner border; front between the insertion of the antennæ strongly raised, the vertex somewhat depressed transversely; sculpture consisting of a very few fine punctures near the eyes and a very fine and indistinct ground sculpture. Antennæ as long as the head and thorax together, all the joints (except the 1st) compressed, the 2nd a little shorter than the 3rd, the 4th to the 10th all a little longer than broad, gradually decreasing in length, the 11th conical shorter than the two preceding together.

Thorax nearly twice as broad as long, widest at the junction of the middle and posterior thirds, the sides from thence strongly rounded and narrowed to the obtuse anterior angles, feebly sinuate in front of the posterior angles which are rectangular, the base bisinuate; disc with trace of median line, the sides broadly impressed throughout; the lateral margins raised, puncturation very fine and very sparing; ground sculpture exceedingly fine transversely retiform; pubescence very sparing, erect.

Elytra as long as, but broader than, the thorax. transverse, strongly sinuate internal to the postero-external angle, puncturation very fine and sparing, pubescence erect consisting of longer and shorter hairs; ground sculpture very finely coriaceous.

Abdomen narrowest behind, the side margins much elevated, practically impunctate and glabrous. Tibiæ compressed.

3: 8th dorsal segment with the posterior border broadly rounded and obscurely crenulate; 6th ventral segment produced, broadly and very slightly emarginate posteriorly.

Hab., Mumbwa, September 2nd, 1913. Flying in a room at night.

# Myrmedonia dollmani n.sp.

Reddish-ochraceous, scarcely shining, the head behind the antennal tubercles, black; abdomen ferruginous; antennæ, mouth parts and legs reddish-testaceous. Length 8mm. 11.3mm.

Head black with greasy lustre only; the front reddish-testaceous and more shining, longitudinally elevated in the middle line; the vertex with a fine impressed line not extending as far as the posterior border; the sculpture consisting of minute (and by no means close) granular elevations, each bearing a yellow hair, and a dense coriaceous ground sculpture. Antennæ of the length of the head and thorax together, the 2nd joint fully half as long as the 1st, the 3rd to the 7th longer than broad, gradually decreasing in length and slightly compressed, the 8th to the 10th scarcely longer than broad and also slightly compressed, the 11th oblong, fully as long as the two preceding together.

Thorax strongly transverse, widest at the middle, the sides rounded from base to apex, but rather more narrowed in front, the anterior angles rounded, the posterior obtuse; disc with a fine impressed line in the middle and a transverse fovea before the scutellum; the sides broadly impressed throughout, the lateral margins raised : sculpture and pubescence similar to that of the head.

Elytra broader and a little longer than the thorax, transverse, with similar sculpture to that of the head but closer and stronger.

Abdomen more shining and more reddish than the fore-parts, very finely, sparingly and asperately punctured, yet more sparingly on the 7th and 8th segments.

 $\sigma$ : head on either side of the vertex with a large crateriform setiferous pore; thorax broader and the sides more rounded than in  $\circ$ . 3rd dorsal segment of the abdomen with the posterior border produced, raised and broadly emarginate, the emargination bounded by a short blunt tooth on either side; 4th with a tubercle in the middle; 5th with a small tubercle on either side close to the lateral margin; 7th with a tubercle immediately in front of the posterior margin in the middle and longitudinally impressed laterally; 8th with a tubercle in the middle, the posterior margin obscurely crenulate in the middle.

Hab., Kashilu, at light.

### Myrmedonia donisthorpei n.sp.

Ochraceous, the head ferruginous, scarcely shining; antennæ, mouth parts and legs reddish testaceous. Length 12 5mm.

 $\sigma$ : head large transverse, eyes large and prominent, the front between the antennal tubercles elevated, the disc anteriorly narrowly impressed in the middle, and with a large crateriform setiferous pore on either side; puncturation fine, asperate, and by no means close, each puncture with a yellow hair; ground sculpture fine but distinct, for the most part forming longitudinal reticulations. Antennæ as long as the head and thorax, laterally compressed from the 3rd joint, the 2nd joint one-third shorter than the 1st, the 3rd longer than the 2nd, the 4th to the 10th differing but little in length or breadth, subtriangular when seen from above and slightly longer than broad, the 11th conical, as long as the 10th.

Thorax strongly transverse, widest about the middle, the sides slightly rounded from base to apex, more strongly narrowed posteriorly to the obtuse but prominent posterior angles, the anterior angles rounded; disc with impressed median line and a small transverse fovea before the scutellum; the sides broadly impressed throughout, the margins elevated; sculpture and ground sculpture much as on the head, but the former distinctly closer.

Elytra broader and a little longer than the thorax, transverse, pretty closely, finely, and somewhat asperately punctured, the ground sculpture indistinct.

Abdomen more shining than the fore-parts, finely, rather sparingly, and superficially punctured, especially posteriorly, ground sculpture fine, transversely strigose. 3rd dorsal segment with the posterior border a little produced and elevated, broadly emarginate in the middle, the emargination bounded by a blunt tooth on either side; 7th dorsal segment longitudinally impressed on either side, and with a transverse row of 6 or 7 obsolete tubercles a little in front of the posterior margin; 8th dorsal segment with a row of 5 tubercles across the middle, the central one being the most distinct, there are also a few scattered granules near the posterior border, which is truncate in the middle and obscurely dentate on either side.

9 unknown.

Hab., Kashilu.

# Myrmedonia spatha n.sp.

Black, the fore-parts with greasy lustre only, the abdomen more shining; thorax red, the base of the elytra sometimes red; the first and sometimes the first three visible abdominal segments more or less dull red. Length Smm.-9mm.

Head transverse, black, very finely and rather sparingly punctured, in the  $\hat{z}$  rather more shining and often broadly impressed anteriorly; ground sculpture distinct and coriaceous in both sexes. Antennæ as long as the head and thorax, the 2nd joint half as long as the 3rd, the 3rd and following compressed, the 5th to the 10th differing but little in length and breadth, and about as long as broad.

Thorax red, subquadrate, scarcely broader than long, widest before the middle, the sides rounded and narrowed anteriorly to the rounded angles, more strongly contracted and very slightly sinuated posteriorly to the rounded posterior angles; disc with an obscure fovea before the scutellum and with a trace of median impressed line often abbreviated in front, exceedingly finely and exceedingly sparingly punctured, ground sculpture distinct, coriaceous.

Elytra broader, and a little longer than, the thorax. transverse, the base often more or less red, very finely, obsoletely, and sparingly punctured, distinctly coriaceous.

 $\sigma$ : 3rd dorsal segment with a small triangular emargination of the posterior border in the middle line, the postero-external angles produced into a narrow, laterally compressed, elongate spatulate process extending nearly to the level of the posterior margin of the 5th segment, parallel and external to, the sides of the abdomen, and gradually and slightly widened towards the apex, which is rounded. 6th segment with a small pointed tubercle in the middle, a little behind the centre. 8th segment with four equidistant tubercles at the posterior border.

Hab., Mwengwa, July 30th, 1913, Namaüla, August 15th, 1914.

# Myrmedonia rhodesiana n.sp.,

Narrow, elongate, parallel, black, shining; the thorax, base, and more or less

of the shoulders of the elytra, 2nd, 3rd, 4th, base (and sometimes the apical margin of the 5th) abdominal segments red. Antennæ ferruginous, the first two joints, mouth-parts, and legs reddish-testaceous. Length 6mm.-8<sup>.75</sup>mm. A brightly coloured species. Smaller and narrower than the preceding and more brightly coloured.

Head transverse, black, exceedingly finely and sparingly punctured, distinctly but finely coriaceous, in the  $\mathcal{J}$  with a small tubercle between the base of the antennæ. Antennæ as long as the head and thorax, the 2nd joint shorter than the 3rd, which is compressed, the following joints not compressed, the 4th scarcely broader than long, the 5th to the 10th transverse, gradually and slightly increasing in breadth, the penultimate about twice as broad as long, the 11th conical, a little longer than the two preceding together.

Thorax red, scarcely transverse, widest just behind the anterior angles which are rounded, the sides narrowed and a little sinuate to the obtuse posterior angles; the surface without impressions or foveæ, exceedingly finely and sparingly punctured, finely coriaceous.

Elytra black, the base and humeral angles red, broader and slightly longer than the thorax, slightly transverse, scarcely sinuate at the postero-external angles, very finely and sparingly punctured, finely coriaceous.

Abdomen yet more shining than the fore-parts, with a few fine punctures on the first three or four segments, the rest practically glabrous.

 $\sigma$ : head with a small tubercle between the insertion of the antennæ. 3rd dorsal segment of the abdomen with an obsolete tubercle in the middle of the posterior border, postero-externally produced into a long pointed spine extending a little beyond the level of the posterior margin of the 4th segment external to the abdominal margin, or with a shorter spine not quite reaching the posterior margin of the 4th segment and lying internal to the abdominal margin. Th segment with a row of four small equidistant tubercles transversely placed across the middle. 8th segment with a transverse row of four tubercles near the base, the posterior margin with four tubercles, the external angles presenting a small tooth.

Hab., Mwengwa, with Termites, May 1st, 1914.

# Myrmedonia seminigra n.sp.

Elongate, subparallel, black, moderately shining; the front of the head, thorax, elytra, extreme apex of the abdomen, mouth-parts, and legs rufo-testaceous. Antennæ ferruginous. Length 7.3mm.-8mm.

Head transverse, black, in front of the antennal tubercles, reddish ; in the 3 with a greasy lustre only, more strongly coriaceous; in the 2 shining with much finer coriaceous ground sculpture; the puncturation in both sexes moderately fine and sparse. Antennæ stout, the 2nd joint shorter than the 3rd, which is compressed, the 4th to the 10th strongly transverse, the penultimate nearly three times as broad as long, the 11th conical, longer than the two preceding together. Thorax slightly transverse, subquadrate, widest just behind the rounded anterior angles, the sides contracted posteriorly in a nearly straight line to the

Thorax slightly transverse, subquadrate, widest just behind the rounded anterior angles, the sides contracted posteriorly in a nearly straight line to the rounded posterior angles; disc without impressions; in the  $\sigma$  less shining and more distinctly coriaceous than in the  $\gamma$ , puncturation moderately fine and not very close, but closer and more distinct than that of the head.

Elytra as long as, but broader than, the thorax, transverse without sinuation at the postero-external angles, puncturation of the same size but closer and more superficial than that of the thorax, evanescent towards the posterior part of the sutural region; ground sculpture very fine, coriaccous.

sutural region; ground sculpture very fine, coriaceous. Abdomen elongate, parallel, black, shining, the apex of the 8th segment rufescent, the 3rd and 4th segments moderately, finely, and sparingly punctured, the rest much more finely and sparingly punctured.

 $\delta$ : dorsal plate of the 3rd segment produced and slightly elevated, broadly emarginate; the postero-external angles of the segment produced backwards either as a strong, laterally compressed spine, parallel and external to the 4th segment, to the level of the posterior margin of which it extends, and separated from the central plate on either side by a semicircular notch, or only produced into a short, stout pointed tooth, lying internal to the lateral margin and extending very little over the 4th segment; 7th segment with a transverse row of four tubercles of which the central are the largest, placed behind the middle, and another row of small tubercles between these and the posterior margin. 8th segment with a row of four tubercles transversely placed across the middle, posterior to these with a